

IN THE CLAIMS:

1. (Amended) A micro-porous mesh structure for supporting a wall of a body passage, comprising:
- a non-polymeric, non-silicone generally tubular body having a contracted condition for facilitating delivery into the body passage, and an enlarged condition for engaging the wall of the body passage, the tubular body being biased to its enlarged condition[; and], the tubular body having
- a plurality of openings [in the tubular body] defining a micro-porous mesh pattern therein.

2 - 58. (Previously Cancelled).

59. (New) The micro-porous mesh structure of claim 1, wherein the tubular body is biased to the enlarged condition at body temperature for substantially securing the tubular body against the wall of the body passage.

60. (New) The micro-porous mesh structure of claim 1, wherein the plurality of openings each have a maximum dimension of not more than about 400 micrometers (0.016 inch).

61. (New) The micro-porous mesh structure of claim 1, wherein the tubular body comprises a coiled-sheet having overlapping inner and outer sections.

62. (New) The micro-porous mesh structure of claim 1, wherein the tubular body comprises a shape memory alloy.

63. (New) The micro-porous mesh structure of claim 62, wherein the shape memory alloy has a transition temperature between substantially ambient temperatures and body temperature, whereby the tubular element is biased to its enlarged condition when exposed to body temperature.

64. (New) The micro-porous mesh structure of claim 62, wherein the shape memory alloy comprises Nitinol having a transition temperature between a substantially ambient temperature and body temperature.

65. (New) The micro-porous mesh structure of claim 1, further comprising a support element that slidably engages the tubular body in the enlarged condition.

66. (New) The micro-porous mesh structure of claim 1, further comprising a support element that is attachable to the tubular body during deployment.

67. (New) The micro-porous mesh structure of claim 1, further comprising a support element that is substantially permanently attached to the interior surface of the tubular body.

68. (New) The micro-porous mesh structure of claim 1, further comprising a support element having a wall thickness of not more than about 150 micrometers (0.006 inch).

69. (New) The micro-porous mesh structure of claim 1, further comprising a support element comprising a coiled-sheet having overlapping inner and outer sections.

70. (New) The micro-porous mesh structure of claim 1, further comprising a support element comprising a shape memory alloy.

71. (New) The prosthesis of claim 70, wherein the shape memory alloy has a transition temperature between substantially ambient temperatures and body temperature, whereby the tubular element is biased to its enlarged condition when exposed to body temperature.

72. (New) The micro-porous mesh structure of claim 1, wherein the tubular body has a wall thickness of not more than about 25 micrometers (0.001 inch).